

REMARKS

Introductory Comments

As of the mailing date of the 06/04/2009 Office Action, claims 1, 4-10, 13-15, 17, 18, and 21 were pending in the present application. In the present amendment, claims 1, 18, and 21 have been amended, leaving claims 1, 4-10, 13-15, 17, 18, and 21 for consideration upon entry of the present Amendment. The claims have been amended as explained below. Reconsideration and allowance of the claims is respectfully requested in view of the foregoing amendments and the following remarks.

Claim Amendments

Independent claims 1, 18, and 21 have been amended to effectively substitute “wet laid furnish” for “tissue furnish”. Support for these amendments can be found, at least, on page 7, line 24 of the application as filed. Claims 1, 18, and 21 have been further amended to delete “vinyl amine copolymers”.

Applicants are not conceding in this application that the amended claims would not have been patentable without the current amendments. The present claim amendments are intended only to facilitate expeditious allowance of valuable subject matter. Applicants respectfully reserve the right to present and prosecute the original versions of amended claims in one or more continuing applications.

Anticipation or Obviousness Rejections Over Lindsay

Claims 1, 5-10, 13-15, 18, and 21 stand rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Lindsay et al (6824650). 06/04/2009 Office Action, page 3, paragraph no. 4. Applicants respectfully traverse this rejection to the extent it may be applicable to the claims as currently amended.

U.S. Patent No. 6,824,650 to Lindsay et al. (hereinafter “Lindsay”) generally describes textile materials, including paper webs, treated with a polyvinylamine polymer and a second agent that interacts with the polyvinylamine polymer. Lindsay abstract.

The second agent added with the polyvinylamine polymer can be, for instance, a polymeric anionic reactive compound or a polymeric aldehyde-functional compound. *Id.* When incorporated into a paper web, the combination of the polyvinylamine polymer and the second agent provide improved strength properties, such as wet strength properties. *Id.*

Applicants respectfully assert that claims 1, 5-10, 13-15, 18, and 21 are neither anticipated by nor rendered obvious over Lindsay because the present claims exclude Lindsay's required polyvinylamine polymer.

Anticipation requires that all of the limitations of the claim be found within a single prior art reference. *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991).

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all limitations of the claim be taught or suggested by the prior art. *See, e.g., CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003); *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974).

Applicants' independent claims 1 and 18 as currently amended include the limitation,

wherein the reacted cationic strength agent or the reacted nonionic strength agent is selected from the group consisting of cationic glyoxalated polyacrylamides, nonionic glyoxalated polyacrylamides, polymeric amine-epichlorohydrin resins, polyethyleneimines, melamine formaldehydes, urea formaldehydes, dialdehyde starches, glyoxal, and mixtures thereof.

Independent claim 21 includes the similar limitation,

wherein the strength agent is selected from the group consisting of cationic glyoxalated polyacrylamides, nonionic glyoxalated polyacrylamides, polymeric amine-epichlorohydrin resins, polyethyleneimines, melamine formaldehydes, urea formaldehydes, dialdehyde starches, glyoxal, and mixtures thereof.

Note, in particular, that the “vinyl amine copolymers” previously recited in these limitations has been deleted. Lindsay does not teach Applicants’ strength agent because Lindsay requires “polyvinylamine polymer”, a species that is not recited in and therefore is excluded from Applicants’ strength agent Markush groups. The Office Action argues that Lindsay’s “polyvinylamine polymer” encompasses copolymers of vinylamine and vinyl acetate, vinyl propionate and/or vinyl alcohol. 06/04/2009 Office Action, page 2, paragraph no. 3. However, in view of the present amendments, vinylamine copolymers are now clearly excluded. The Office Action also argues “the open language of the instant claims does not exclude the use of a polyvinylamine in addition to the recited species of strength agent”. 06/04/2009 Office Action, page 2, paragraph no. 3. Applicants respectfully disagree. The present application discloses the use of “polyvinyl amines” and “vinyl amine copolymers” only in the context of strength agents. By deleting these members from the strength agent Markush group, Applicants have clearly excluded them from the claim as a whole. To argue that these components can be included based on the use of “comprising” in the preamble is incorrect because it would render meaningless the well-established right of an applicant to use “consisting of” to limit an element in a clause in the body of a claim. See MPEP 2111.03. It is therefore clear that Applicants’ deletion of “polyvinyl amines” (in the 03/30/2009 Amendment) and “vinyl amine copolymers” (in the present Amendment) from the strength agent Markush group excludes those components from the claim as a whole.

Thus, Lindsay fails to teach or suggest all the limitations of Applicants’ independent claims, and Lindsay therefore neither anticipates nor renders obvious those claims. Moreover, a skilled person would not modify Lindsay to omit his required “polyvinylamine polymer” because “the combination of the polyvinylamine polymer and the second agent provide[s] improved strength properties”. Lindsay abstract. Applicants therefore respectfully request the reconsideration and allowance of the rejection of claims 1, 5-10, 13-15, 18, and 21 under 35 U.S.C. § 102(e) or 35 U.S.C. § 103(a) over Lindsay.

Obviousness Rejections Over Lindsay + Drelich

Claims 4 and 17 stand rejected under 35 U.S.C. § 103(a), as unpatentable over Lindsay in view of Drelich et al (3865775). 06/04/2009 Office Action, page 6, paragraph no. 5. Applicants respectfully traverse this rejection to the extent it may be applicable to the claims as currently amended.

Lindsay is described above.

Drelich generally describes a resin binder composition comprising: (1) a synthetic resin; (2) a water-soluble, polymeric, carboxylic thickener; and (3) a metal ammine complex coordination compound capable of releasing ions of said metal to control the total migration of the resin binder during its deposition on a fibrous web. Drelich abstract. Drelich is cited for

teach[ing] that well known printed bonding patterns applied to flushable fibrous webs include interconnecting or interlocking grids comprising straight or wavy lines extending transversely or diagonally across the webs and additionally, if desired, along the web (Abs; col 2, lines 24-30 and 42-46; col. 17, lines 15-18).

06/04/2009 Office Action, page 7, first paragraph.

Claims 4 and 17 each depend directly from and further limit claim 1. As described above, claim 1 is patentable over Lindsay because claim 1 defines the strength agent in a way that excludes Lindsay's "polyvinylamine polymer". Also as described above, a skilled person would not modify Lindsay to omit his required "polyvinylamine polymer". Claims 4 and 17 are therefore patentable over Lindsay. Adding Drelich, which is cited as teaching particular printed bonding patterns, does not remedy the deficiencies of Lindsay. Accordingly, Lindsay and Drelich do not collectively support a prima facie case of obviousness against claims 4 and 17. Applicants therefore respectfully request the reconsideration and withdrawal of the rejection of claims 4 and 17 under 35 U.S.C. § 103(a) over Lindsay in view of Drelich.

Obviousness Rejections Over Sheppard + Champaigne + Chen ‘234 + Chen ‘679 +
Oriaran + Drelich

Claims 1, 4-6, 9, 10, 13-15, 17, 18, and 21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sheppard et al (3702610) in view of Champaigne Jr. et al (3616797) and further in view of Chen et al (6436234 and 6261679) and Oriaran et al (6017418) as evidenced by Drelich. 06/04/2009 Office Action, page 7, paragraph no. 6. Applicants respectfully traverse this rejection to the extent it may be applicable to the claims as currently amended.

Drelich is described above.

U.S. Patent No. 3,702,610 to Sheppard et al. (hereinafter “Sheppard”) generally describes a means for indicating when a sanitary napkin or diaper wrapped with a web bonded with a spaced pattern of water-dispersible adhesive is in condition for flushing away after it is dropped in a toilet for disposal. Sheppard abstract. Sheppard’s preferred substrate is a carded web of rayon fibers. Sheppard, column 2, lines 3-10. Sheppard teaches some fiber types other than rayon. Sheppard, column 4, lines 16-20. Sheppard also teaches air-formed webs and drafted webs as alternatives to carded webs. Sheppard, column 4, lines 26-29.

U.S. Patent No. 3,616,797 to Champaigne Jr. et al. (hereinafter “Champaigne”) is similar to Sheppard in that it generally relates to sanitary napkins and diapers. Champaigne abstract. Champaigne describes a flushable wrapper for such products. *Id.* The wrapper comprises a non-woven fiber web bonded by a water-soluble adhesive and overprinted with another binder comprising a spaced pattern of water-soluble adhesive. *Id.* Champaigne’s preferred water-soluble adhesive is polyvinyl alcohol, with “polyvinyl methyl ether, glycol cellulose, cellulose glycolate, methyl cellulose and the like” being taught as less preferred alternatives (column 4, lines 24-27). Like Sheppard, Champaigne preferably uses a carded web of rayon fibers. Champaigne, column 2, lines 36-37.

U.S. Patent No. 6,436,234 to Chen et al. (hereinafter “Chen ‘234”) generally describes paper sheets useful for tissues, paper towels, napkins, disposable absorbent

products. Chen '234 abstract. The sheets can be made to exhibit a high degree of wet resiliency by using a combination of high yield pulp fibers and a wet strength agent in an uncreped throughdrying process. *Id.*

U.S. Patent No. 6,261,679 to Chen et al. (hereinafter "Chen '679") generally describes a fibrous absorbent structure that is wet stable and has large void volume with a density below the critical density of the fiber employed. Chen abstract. The wet-stable, high void volume fibrous absorbent can be used in a disposable product intended for the absorption of fluid such as body fluid, including extensible absorbent articles. *Id.*

Oriaran generally describes hydrophilic, humectant, soft, pliant, single-ply or multiply absorbent papers in the form of napkin, towel, bathroom tissue or facial tissue. Oriaran abstract. In the present Office Action, Oriaran is cited for

disclos[ing] single- or multi-ply fibrous absorbent paper products in the form of napkin, towel, bathroom tissue or facial tissue (Abs). As a bathroom tissue, the paper product is inherently water dispersible. Oriaran et al discloses many of the claimed polymers for use as temporary wet strength agents (Abs; col 16, lines 35-44; col 18, lines 15-26).

01/30/2009 Office Action, page 11, first full paragraph.

Applicants respectfully assert that claims 1, 4-6, 9, 10, 13-15, 17, 18, and 21 are patentable over Sheppard in view of Champaigne and further in view of Chen '234, Chen '679, and Oriaran as evidenced by Drelich because the cited references do not collectively teach or suggest the use of a fibrous substrate made from a wet laid furnish.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all limitations of the claim be taught or suggested by the prior art. *See, e.g., CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003); *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974).

Applicants' independent claims 1, 18, and 21 each recite "a fibrous substrate made from a wet laid furnish". Sheppard's preferred substrate is a carded web of rayon fibers. Sheppard, column 2, lines 3-10. Sheppard teaches some fiber types other than rayon. Sheppard, column 4, lines 16-20. Sheppard also teaches air-formed webs and drafted webs as alternatives to carded webs. Sheppard, column 4, lines 26-29. However, Sheppard does not teach or suggest a fibrous substrate made from a wet laid furnish, as required by Applicants' claims. Furthermore, the Office has not identified any teaching in the secondary references that would have motivated a skilled person to modify Sheppard to use a substrate made from a wet laid furnish. Accordingly, a prima facie case of obviousness has not been established. Applicants therefore respectfully request the reconsideration and withdrawal of the rejection of claims 1, 4-6, 9, 10, 13-15, 17, 18, and 21 under 35 U.S.C. § 103(a) over Sheppard in view of Champaigne and further in view of Chen '234, Chen '679, and Oriaran as evidenced by Drelich.

Obviousness Rejections Over Sheppard + Champaigne + Chen '234 + Chen '679 + Oriaran + Srinivasan

Claims 6 and 14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sheppard in view of Champaigne and further in view of Chen '234, Chen '679, and Oriaran, and even further in view of Srinivasan et al (3913579). 06/04/2009 Office Action, page 13, paragraph no. 7. Applicants respectfully traverse this rejection to the extent it may be applicable to the claims as currently amended.

Sheppard, Champaigne, Chen '234, Chen '679, and Oriaran are described above.

U.S. Patent No. 3,913,579 to Srinivasan et al. (hereinafter "Srinivasan") generally describes a sanitary napkin that includes a flushable absorbent pad and an extremely flushable nonwoven fibrous cover that is bonded with a totally water-soluble resinous binder. Srinivasan abstract.

Claims 6 and 14 each depend ultimately from and further limit claim 1. As described above, the Office has not established a prima facie case of obviousness against claim 1 over the combination of Sheppard, Champaigne, Chen '234, Chen '679, Oriaran,

and Drelich. Claims 6 and 14 are therefore patentable over Sheppard, Champaigne, Chen '234, Chen '679, and Oriaran. The addition of Srinivasan, which is cited for the use of an insoluble hot melt adhesive in a particular pattern, does not remedy the deficiencies of the other references. Accordingly, claims 6 and 14 are patentable over Sheppard, Champaigne, Chen '234, Chen '679, Oriaran, and Srinivasan. Applicants therefore respectfully request the reconsideration and withdrawal of the rejection of claims 6 and 14 under 35 U.S.C. § 103(a) over Sheppard, Champaigne, Chen '234, Chen '679, Oriaran, and Srinivasan.

Obviousness Rejections Over Sheppard + Champaigne + Chen '234 + Chen '679 + Oriaran + Sun

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sheppard in view of Champaigne and further in view of Chen '234, Chen '679, and Oriaran, and even further in view of Sun et al (6322665). 06/04/2009 Office Action, page 14, paragraph no. 8. Applicants respectfully traverse this rejection to the extent it may be applicable to the claims as currently amended.

Sheppard, Champaigne, Chen '234, Chen '679, and Oriaran are described above.

U.S. Patent No. 6,322,665 to Sun et al. (hereinafter "Sun") generally describes methods for making high wet performance webs, the methods including applying polymeric anionic reactive compound heterogeneously to a cellulosic fibrous web followed by curing of the compound to crosslink the cellulose fibers. Sun abstract.

Claims 7 and 8 each depend ultimately from and further limit claim 1. As described above, the Office has not established a prima facie case of obviousness against claim 1 over the combination of Sheppard, Champaigne, Chen '234, Chen '679, Oriaran, and Drelich. Claims 7 and 8 are therefore patentable over Sheppard, Champaigne, Chen '234, Chen '679, and Oriaran. The addition of Sun, which is cited for teaching tissue webs comprising patterns of polymeric strength agents, does not remedy the deficiencies of the other references. Accordingly, claims 7 and 8 are patentable over Sheppard, Champaigne, Chen '234, Chen '679, Oriaran, and Sun. Applicants therefore respectfully

request the reconsideration and withdrawal of the rejection of claims 7 and 8 under 35 U.S.C. § 103(a) over Sheppard, Champaigne, Chen '234, Chen '679, Oriaran, and Sun.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is respectfully requested.

It is believed that all the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' Attorneys.

Respectfully submitted,

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